

=====

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: Fri Nov 09 11:16:49 EST 2007

=====

Application No: 10582393 Version No: 2.0

Input Set:

Output Set:

Started: 2007-10-24 20:51:36.128
Finished: 2007-10-24 20:51:39.217
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 89 ms
Total Warnings: 135
Total Errors: 2
No. of SeqIDs Defined: 135
Actual SeqID Count: 135

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
E 342	'n' position not defined found at POS: 6 SEQID(1)
W 402	Undefined organism found in <213> in SEQ ID (2)
E 342	'n' position not defined found at POS: 6 SEQID(2)
W 402	Undefined organism found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 402	Undefined organism found in <213> in SEQ ID (16)
W 402	Undefined organism found in <213> in SEQ ID (17)
W 402	Undefined organism found in <213> in SEQ ID (18)

Input Set:

Output Set:

Started: 2007-10-24 20:51:36.128
Finished: 2007-10-24 20:51:39.217
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 89 ms
Total Warnings: 135
Total Errors: 2
No. of SeqIDs Defined: 135
Actual SeqID Count: 135

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (19)
W 402	Undefined organism found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> GREINER BIO-ONE GMBH
Kranewitter, Wolfgang
Mittermayr, Christian
Winner, Florian
Iftner, Thomas

<120> PRIMERS AND PROBES FOR DETECTING GENITAL HPV GENOTYPES

<130> GRE-106US

<140> 10582393
<141> 2007-10-24

<150> DE 103 57 677.0
<151> 2003-12-10

<160> 135

<170> PatentIn version 3.4

<210> 1
<211> 25
<212> DNA
<213> Human papillomavirus

<220>
<221> misc_feature
<223> r is a or g; w is t or a; k is t or g; i is inosine; y is c or t;
n is a, t, g, or c; d is a, t, or g

<400> 1

cargcnaaaw wwkt~~d~~aarga ytgtg 25

<210> 2
<211> 25
<212> DNA
<213> Human papillomavirus

<220>
<221> misc_feature
<223> r is a or g; k is t or g; n is a, t, g, or c

<400> 2

cargcnaaat atktraaaga ttgtg 25

<210> 3
<211> 25
<212> DNA
<213> Human papillomavirus

<220>
<221> misc_feature
<223> r is a or g; w is t or a

<400> 3
cargcaaaat atgtwaagga ttgtg 25

<210> 4
<211> 25
<212> DNA
<213> Human papillomavirus

<220>
<221> misc_feature
<223> r is a or g; w is t or a

<400> 4
cargcwaaaa ttgtaaarga ttgtg 25

<210> 5
<211> 25
<212> DNA
<213> Human papillomavirus

<400> 5
caagcaaaaa tagtaaarga ctgtg 25

<210> 6
<211> 25
<212> DNA
<213> Human papillomavirus

<400> 6
cargcaaaat atgtaaaaga ctgtg 25

<210> 7
<211> 23
<212> DNA
<213> Human papillomavirus

<400> 7
aryggysya rccaaaartg rct 23

<210> 8
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 8
aagctttcta ggaggtacag ttatttagtca 30

<210> 9
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 9
ataaaaacata ggggttctaa aatagaaggc 30

<210> 10
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 10
actaaagttg acagtgttagg taactggaag 30

<210> 11
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 11
ttaaacaatg gattaagtat aggggtacta 30

<210> 12
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 12
aaaagatgtc tattaaacaa tggattaagt 30

<210> 13
<211> 29
<212> DNA
<213> Human papillomavirus

<400> 13
gggtactaaa gttgacagtg taggtaact 29

<210> 14
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 14
gggaacagtt attagttatg ttaattcctg 30

<210> 15

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 15
aattgtatacg ccattgtagg gccacacctgac 30

<210> 16
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 16
ggccacacctg acactggaa gtcgtgctt 30

<210> 17
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 17
ggccacacctg acactggaa gtcgtgctt 30

<210> 18
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 18
tgatggaggt gattggaagc aaattgttat 30

<210> 19
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 19
tgaaatttct gcaagggtct gtaatatgtt 30

<210> 20
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 20
atggagggtga ttggaagcaa attgttatgt 30

<210> 21
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 21
gaccaatagt gcaattcctg cgataccaac 30

<210> 22
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 22
caaacattat aggcgagccc aaaaacgaca 30

<210> 23
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 23
tcctgcgata ccaacaaata gagttataa 30

<210> 24
<211> 28
<212> DNA
<213> Human papillomavirus

<400> 24
ctgcgatacc aacaaataga gtttataa 28

<210> 25
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 25
agaaacgatc tatgtgtatg tcacaatggc 30

<210> 26
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 26
agaagagggc gggtcgtgga aggaaattgc 30

<210> 27
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 27
ggcgggtcgt ggaaggaaat tgccaaattt 30

<210> 28
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 28
gcacagaaac gatctatgtg tatgtcacaa 30

<210> 29
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 29
gttagatgtga caaagttagt gacgaaggta 30

<210> 30
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 30
tgagccttat tagttttta caaggatgt 30

<210> 31
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 31
caaagttagt gacgaaggta actggaggga 30

<210> 32
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 32
acagttttta aaagggtgtg ttatatcatg 30

<210> 33
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 33
gggtgtgtta tatcatgtgt aaattctaaa 30

<210> 34

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 34
aaagggtgtg ttatcatg tgtaaattct 30

<210> 35
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 35
attacacata gatgtgattt aatagatgat 30

<210> 36
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 36
tttaatgcag tttatgcaag gtgtggtat 30

<210> 37
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 37
tgatttaata gatgatggag gaaactggaa 30

<210> 38
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 38
tgcaagtttat gcaagggtgtg gttatttcat 30

<210> 39
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 39
ttaatagatg atggaggaaa ctggaaacat 30

<210> 40
<211> 28
<212> DNA
<213> Human papillomavirus

<400> 40
aggtggacga tgacggtgac tggaggga 28

<210> 41
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 41
gcatttctta caaggagcta ttatatccta 30

<210> 42
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 42
aaggcaaatg tccatgtctc aatggataaa 30

<210> 43
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 43
tgtaaacatt acaagcgagc aaaaaaaaagg 30

<210> 44
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 44
agccttatgc atttttaca gggcacagtt 30

<210> 45
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 45
tatttcatat gtaaaactcca ccagccactt 30

<210> 46
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 46
aatttaggtg tagtaaatgt gatgaaggcg 30

<210> 47
<211> 27
<212> DNA
<213> Human papillomavirus

<400> 47
gaagtgtat gaaggcgact ggaaacc 27

<210> 48
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 48
gaatgagcct gatgcacttt atgcaaggt 30

<210> 49
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 49
cctgatgcac tttatgcaag gtacaataat 30

<210> 50
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 50
tccatgtgca aacactatag gtttagcagaa 30

<210> 51
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 51
acaaatgaga cgtatgtcta tgggtgcatt 30

<210> 52
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 52
gacgtatgtc tatgggtgca tggataaaaac 30

<210> 53

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 53
cagtaaattt gaagacacag gaaattggaa 30

<210> 54
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 54
ggcactgtaa ttagttatgt aaactccagc 30

<210> 55
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 55
atatgaaaca gtggataaaa tttaggagca 30

<210> 56
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 56
acgccaaatg aatatgtctc aatggattaa 30

<210> 57
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 57
cgccaaatga atatgtctca atggattaaa 30

<210> 58
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 58
tttaaggca ctaaaggaat ttcttaaagg 30

<210> 59
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 59
ggtgcaataa tatcatttgc aaattcaaac 30

<210> 60
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 60
ggcactaaag gaatttctta aaggaacacc 30

<210> 61
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 61
agggcactaa aggaatttct taaaggaca 30

<210> 62
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 62
cattatctat gtcagcctgg ataaggata 30

<210> 63
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 63
gcacaaaagaa aatcattatc tatgtcagcc 30

<210> 64
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 64
aaatcattat ctatgtcagc ctggataagg 30

<210> 65
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 65
aaacatatga atattggaca atggatacag 30

<210> 66
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 66
gaaagaaaaac atatgaatat tggacaatgg 30

<210> 67
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 67
ttaatttagt tcttaagtgg atgtgtata 30

<210> 68
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 68
taaaggcatgt atgttagcaag gtggatgatg 30

<210> 69
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 69
gatgaatatg aaacaatgga taaaggcatgt 30

<210> 70
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 70
aagcatgtat gtagcaaggt ggatgatggt 30

<210> 71
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 71
gttattttatg gtccctccaaa cacgggtaaa 30

<210> 72

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 72
aaacaatgga taaagcatgt atgttagcaag 30

<210> 73
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 73
ttagttatcc atggtcctcc aaacacgggt 30

<210> 74
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 74
ttagttttt aggagggtta gtgctatcat 30

<210> 75
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 75
ttgtgattta gtagaggagg aaggtgagtg 30

<210> 76
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 76
cgttgtgatt tagtagagga ggaaggtgag 30

<210> 77
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 77
catcgttgtg atttagtaga ggaggaaggt 30

<210> 78
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 78
gggcacaaca gcaacaaatg aatatgtgcc 30

<210> 79
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 79
cacaacagca acaaatgaat atgtgccagt 30

<210> 80
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 80
ctgtttggta ctttgtggac cgccaaatac 30

<210> 81
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 81
tttcaagggt ctgtcatttc atttgtgaat 30

<210> 82
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 82
acattttta aaaggatgca ttatttcata 30

<210> 83
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 83
cgtggtatga caatgggaca atggatacaa 30

<210> 84
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 84
gagcagaaaaa gcgtggtatg acaatgggac 30

<210> 85
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 85
aggatgcatt atttcatatg taaattccaa 30

<210> 86
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 86
aaagcgtggc atgacaatgg gacaatggat 30

<210> 87
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 87
agcctgctac atttttaca aggaactgta 30

<210> 88
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 88
gattacacat agaggccgca aggtggcaga 30

<210> 89
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 89
attacacata gagggccgcaa ggtggcagac 30

<210> 90
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 90
agtggattac acatagaggc cgcaaggtag 30

<210> 91

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 91
acagtggatt acacatagag gccgcaaggt 30

<210> 92
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 92
gtaccattta ttagtgccct taaattgttt 30

<210> 93
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 93
ttacggacca agcgacacag ggaagtgcgt 30

<210> 94
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 94
tacggaccaa gcgacacagg gaagtgccta 30

<210> 95
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 95
gagccttata aatttttcc aagggtcagt 30

<210> 96
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 96
ccttataaat tttttccaag ggtcagtcata 30

<210> 97
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 97
attacaaaag ggcacagcaa cagcaaatga 30

<210> 98
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 98
atggaggaga ctggagaaca atagtaaagc 30

<210> 99
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 99
aagttgtatg gtaatatgcg gaccaccaaa 30

<210> 100
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 100
caaggatgtg taatatcata tgtaaacgcc 30

<210> 101
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 101
aggagactgg agaacaatag taaagctatt 30

<210> 102
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 102
gttgtatggt aatatgcgga ccaccaaaca 30

<210> 103
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 103
aacgacaaat gtcaatgccg caatggatta 30

<210> 104
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 104
cgggcacaaa aacgacaaaat gtcaatgccg 30

<210> 105
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 105
tcaatgccgc aatggattaa atttagatgc 30

<210> 106
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 106
atggcgcaat ggattaggtt tagatgtgat 30

<210> 107
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 107
aaatgactat ggcgcaatgg attaggtta 30

<210> 108
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 108
attaggtta gatgtgataa atgtgacgat 30

<210> 109
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 109
taaatttata caaggtgtag ttatttcgta 30

<210> 110

<211> 30
<212> DNA
<213> Human papillomavirus

<400> 110
atgtgattta actaatgatg gtggtaattg

30

<210> 111
<211> 30
<212> DNA
<213> Human papillomavirus

<400> 111
taatgatggt ggttaattgga